

WHAT IS CLAIMED IS:

1. A stretchable conveyor belt having at least one of (a) a plurality of first cuts which extend in a widthwise direction of the belt, which extend from one of opposite surfaces of the belt toward the other surface thereof and do not reach said other surface, and which are provided at a regular interval of distance in a lengthwise direction of the belt, and (b) a plurality of second cuts which extend in the widthwise direction of the belt, which extend from said other surface of the belt toward said one surface thereof and do not reach said one surface, and which are provided at a regular interval of distance in the lengthwise direction of the belt,

wherein said at least one of (a) the first cuts and (b) the second cuts provide a stretchability of the belt.

2. A stretchable conveyor belt according to claim 1, having both (a) the first cuts and (b) the second cuts, wherein the first cuts and the second cuts are alternate with each other in the lengthwise direction of the belt.

3. A stretchable conveyor belt having a plurality of recesses which extend in a widthwise direction of the belt, which extend from one of opposite surfaces of the belt toward the other surface thereof, and which are provided at a regular interval of distance in a lengthwise direction of the belt,

wherein the recesses provide a stretchability of the belt.

4. A stretchable conveyor belt, comprising:

an upper layer;

a lower layer; and

an intermediate portion located between the upper and lower layers,

wherein at least one of the upper layer and the lower layer is integrally formed over an entire width of the belt,

wherein the intermediate portion has a plurality of voids which extend in a widthwise direction of the belt and are provided at a regular interval of distance in a lengthwise direction of the belt, and

wherein the voids provide a stretchability of the conveyor belt.

5. A stretchable conveyor belt having

at least one void which is provided in an intermediate portion of the belt as seen in a direction of thickness thereof, which extends in a widthwise direction of the belt, and which is gradually widened in at least one direction toward at least one of widthwise opposite ends of the belt, and

wherein the void provides a stretchability of the conveyor belt.

6. A stretchable conveyor belt according to claim

10067547, 020702
20060207 14525001

4, further comprising at least one pair of first and second flexible reinforcing threads which extend in the lengthwise direction of the belt, and which include a plurality of first curved or bent portions and a plurality of second curved or bent portions, respectively, in the lengthwise direction, such that the first curved or bent portions and the second curved or bent portions have opposite phases, respectively, and are turned around the voids, respectively.

7. A stretchable conveyor belt comprising
at least one flexible belt-reinforcing material which
extends in a lengthwise direction of the belt and includes a
plurality of curved or bent portions in the lengthwise direction,
wherein the curved or bent portions of the belt-
reinforcing material provide a stretchability of the conveyor belt.

8. A stretchable conveyor belt according to claim
7, wherein the belt-reinforcing material extends over a
substantially entire width of the belt except for widthwise
opposite margin rubber portions of the belt.

9. A stretchable conveyor belt according to claim
7, wherein the belt-reinforcing material is embedded in an
intermediate portion of the belt as seen in a direction of thickness
thereof.

10. A stretchable conveyor belt according to claim

10067547.00702

7, wherein the belt-reinforcing material comprises a tension canvas sheet.

11. A stretchable conveyor belt according to claim 4, wherein the belt has the stretchability in at least widthwise opposite side portions thereof.

12. A stretchable conveyor belt according to claim 4, wherein the belt has the stretchability over a substantially entire width thereof.

13. A stretchable conveyor belt according to claim 11, wherein the belt has a higher stretchability in the widthwise opposite side portions thereof, than a stretchability in a widthwise central portion thereof.

14. A stretchable conveyor belt comprising
a tension canvas sheet which is provided in a widthwise central portion of the belt to reinforce the belt, and which binds the widthwise central portion of the belt such that the widthwise central portion is not stretchable in a lengthwise direction of the belt,

wherein the tension canvas sheet is not provided in widthwise opposite side portions of the belt, so that the widthwise opposite side portions of the belt have a stretchability.

15. A stretchable conveyor belt according to claim

10057547-000702

7, further comprising a plurality of transverse rigid plates which extend in the widthwise direction of the belt and are provided at a regular interval of distance in the lengthwise direction of the belt, wherein the transverse rigid plates provide a transverse rigidity of the belt.

16. A stretchable conveyor belt according to claim 7, further comprising a plurality of transverse rigid members which provide at least two layers that extend in the widthwise direction of the belt and are spaced from each other in a direction of thickness of the belt, wherein the transverse rigid members provide a transverse rigidity of the belt.

17. A stretchable conveyor belt according to claim 16, wherein the transverse rigid members comprise a plurality of wires.

18. A stretchable conveyor belt comprising widthwise opposite end portions which are adapted to be supported by respective rollers and each of which has at least one void in an intermediate portion thereof as seen in a direction of thickness thereof, wherein the void provides a stretchability of said each of the widthwise opposite end portions of the belt; and

a plurality of wires which provide at least one layer on at least a lower side of the void of said each of the widthwise opposite end portions of the belt, wherein the wires provide a

10067517.020702

transverse rigidity of the belt.

19. A stretchable conveyor belt according to claim 18, wherein the conveyor belt has, in each of respective lower surfaces of respective portions of the belt that are nearer than the respective voids of the widthwise opposite end portions of the belt, to a widthwise central portion of the belt, a plurality of recesses which extend in the widthwise direction of the belt and are provided at a regular interval of distance in the lengthwise direction of the belt, and wherein the recesses cooperate with the voids to provide a stretchability of the belt.

20. A stretchable conveyor belt according to claim 18, wherein a widthwise central portion of the belt has a stretchability owing to an elasticity of rubber.

21. A stretchable conveyor belt according to claim 4, for use as a person conveyor belt for conveying at least one person.

22. A stretchable conveyor belt according to claim 7, for use as a person conveyor belt for conveying at least one person.

23. A stretchable conveyor belt according to claim 4, wherein the stretchable conveyor belt comprises a circulateable endless belt, and an endless chain which is fixed to a back surface

1006242-2000

of the endless belt, such that the endless chain extends in a lengthwise direction of the endless belt and transmits a drive force produced by a drive device.

24. A stretchable conveyor belt according to claim 7, wherein the stretchable conveyor belt comprises a circulateable endless belt, and an endless chain which is fixed to a back surface of the endless belt, such that the endless chain extends in a lengthwise direction of the endless belt and transmits a drive force produced by a drive device.

25. A method of producing a stretchable conveyor belt according to claim 4, the method comprising the steps of:

forming the upper and lower layers separately from each other, such that the upper layer has, in a lower surface thereof, respective upper portions of the voids and the lower layer has, in an upper surface thereof, respective lower portions of the voids, and

superposing, and fixing, the upper and lower layers on, and to, each other to provide the conveyor belt having the voids in the intermediate portion thereof as seen in the direction of thickness thereof.

26. A method of producing a stretchable conveyor belt according to claim 4, the method comprising the steps of:

forming the conveyor belt with a plurality of bar members being embedded therein, and

1067547.00702

pulling the bar members out of the conveyor belt to form, in the belt, the voids corresponding to the bar members.

10067547.020702